

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

DYSON TECHNOLOGY LIMITED)	
and DYSON, INC.)	
)	
Plaintiffs,)	
)	
v.)	C.A. No. 05-434-GMS
)	
MAYTAG CORPORATION,)	
)	
Defendant.)	

PLAINTIFFS' RESPONSE TO MAYTAG'S OPENING CLAIM
CONSTRUCTION BRIEF

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ARGUMENT

The Court should adopt Dyson's proposed constructions of the patent terms in dispute. Dyson's constructions are consistent with the patent claims and specifications, as required by Federal Circuit law. Maytag's proposed constructions, on the other hand, are inconsistent with the claims and specifications, and are simply an effort to read into the claims limitations from the patent specifications and drawings that Maytag hopes will lead to a finding of non-infringement in this case.¹

Term # 1 "dirty air inlet [to outer container]"

As Dyson explained (Dyson Br. at 8), a common definition of the word "inlet" is "an opening by which entrance is made." Webster's Dictionary 1165. A passage, by contrast, is "a road, path, channel or course through or by which something passes." *Id.* at 1650. Although a passage may be used to carry dirty air to the outer container, the "inlet" is the "opening by which entrance is made" into the container. Maytag argues that this term requires a passage because the patent specifications refer to a "dirty air inlet passage" on the drawings of the preferred embodiments. The word "passage," however, is not present in the claims, and cannot properly be read into them. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1320 (Fed. Cir. 2005); *Intervet Am., Inc. v. Kee-Vet Labs., Inc.*, 887 F.2d 1050, 1053 (Fed. Cir. 1989).

Maytag also asserts that "there is absolutely no basis in the claim term itself for the phrase 'sucked up by the vacuum cleaner' or 'of the cyclonic apparatus' as suggested by Dyson." Maytag Br. at 6. A claim term, however, must be construed in the context of the claim and patent, not just the words of the claim term. *Phillips*, 415 F.3d

¹ Capitalized terms used herein shall have the meanings ascribed to them in Plaintiffs' Opening Claim Construction Brief, dated May 26, 2006 ("Dyson Br.").

1313. It is also appropriate to construe a claim term in a manner that a jury will easily understand—especially where, as here, there can be no genuine dispute as to a term’s meaning. *Cf. AFG Indus., Inc. v. Cardinal IG Co.*, 239 F.3d 1239, 1247 (Fed. Cir. 2001) (“It is critical for trial courts to set forth an express construction of the material claim terms in dispute, in part because the claim construction becomes the basis of the jury instructions, should the case go to trial.”). Here, the claims clearly describe a vacuum cleaner—which is simply “an electrical appliance for cleaning . . . by suction”²—that sucks dirty air through a dirty air inlet and into an apparatus that uses cyclones, *i.e.*, a “cyclonic apparatus,” to separate the dirt from the air. *See, e.g.*, ’515 patent, col. 11:36-12:12 (JA11) (describing a “cleaning apparatus” that starts with “a dirty air inlet . . . for supplying dirt laden air,” ends with “a dirt receiving and collection chamber” for “depositing dirt,” and has a “means for generating an air flow” through the entire cleaning apparatus); *accord* ’748 patent, col. 6:17-45 (JA21); ’008 patent, col. 4:2-30 & col. 6:10-37 (JA26-27); *see also* ’515 patent, col. 1:13-15 (JA6) (“This invention relates to an improved *vacuum cleaning apparatus* which includes at least one *cyclone* unit for dust extraction”) (emphasis added); ’748 patent, col. 1:6-7 (JA19) (same). Dyson’s proposed construction is thus accurate and appropriate.

Term # 2 “an upper portion of the outer container”

This term means above the midline of the outer container, a construction that is consistent with the common meaning of the words “upper portion.” Dyson Br. at 9-10. A common definition of “portion” is “a part of a whole,” Webster’s Dictionary 1768, and a common definition of “upper” is “being a higher part,” *id.* at 2518. When

² Webster’s Dictionary 2527.

combined, the words “upper portion” thus refer to the higher part of the outer container, *i.e.*, the part above the midline.

Maytag cites no authority for its assertion that “upper portion” means “at or near the top.” It simply states that this construction is “consistent with the location of the inlets 16, 57 and 58 in the drawings of the ‘515 patent.” Maytag Br. at 7. In so arguing, Maytag improperly attempts to restrict the language of the claims to cover only the features of the preferred embodiments shown in the drawings of the patents. *See Gart v. Logitech, Inc.*, 254 F.3d 1334, 1342 (Fed. Cir. 2001) (“[T]hese drawings only [] depict the preferred embodiment [and] are not meant to represent ‘the’ invention or to limit the scope of coverage defined by the words used in the claims themselves.”); *see also Phillips*, 415 F.3d at 1320 (“[O]ne of the cardinal sins of patent law [is to read] a limitation from the written description into the claims.”).

Term # 3 “oriented for supplying dirt laden air into the container tangentially to the interior surface of the outer container”

Contrary to Maytag’s suggestion, the parties’ disagreement concerning this term is not whether “oriented” means “configured” or “arranged.” The dispute—which Maytag does not address in its opening brief—is whether “oriented for supplying” means “to cause.” There is simply no support for Maytag’s contention that “oriented for supplying” means “arranged *to cause*.” *See Dyson Br.* at 11-12.

For the reasons discussed above, it also is appropriate to use the words “sucked up by the vacuum cleaner” in the construction of this term. *See supra*, pp. 1-2. The claims relate to a form of vacuum cleaner that sucks up dirty air and cleans it through the use of cyclones.

Moreover, the word “tangentially” requires only that the air flow in the nature of a tangent, not that it flow in the exact direction of a tangent—*i.e.*, “in a direction

perpendicular to the radius”—as Maytag argues. *See* Dyson Br. at 12-13. If the patent claims were intended to require the air to travel in a perpendicular direction to a specified point, they would have so stated. Indeed, the word “perpendicular” is used in that fashion elsewhere in the patents. *Id.* at 13.

Term # 4 “an air outlet from the container at an upper portion of the container”

In construing the words “upper portion” to mean that the air outlet must be “at or near the top,” Maytag improperly attempts to restrict the clear language of the claims to cover only the features of the preferred embodiments shown in the drawings of the ’515 and ’748 patents. *See, e.g.,* Maytag Br. at 10 (referring to the drawings of the preferred embodiments of the ’515 and ’748 patents). The patent specifications and the language of the claim elements establish that “upper portion” simply means upper half or above the midline.

Maytag’s criticism of Dyson’s use of the words “through which the air circulating in the outer container can move from that container into the inner, cone-shaped cyclone mounted within the container” is also not well founded. Maytag Br. at 10. The claims explicitly state that this is how the air flows through the cyclonic cleaning apparatus. *See* ’515 patent, col. 12:5-7 (JA11) (requiring that air flow sequentially through “the container,” “the cyclone air inlet,” and the “cyclone”); ’748 patent, col. 6:40-41 (JA21) (same); ’008 patent, col. 4:23-25 & col. 6:32-33 (JA26-27) (same).

Term # 5 “a cyclone air inlet at an upper end . . . of the cyclone in air communication with the air outlet of the container”

Maytag claims that its proposed construction of the words “at an upper end” is consistent with the patent drawings. Maytag Br. at 11. That is not the case. In

many of the drawings, the cyclone air inlet is near, but not at, the top of the inner cyclone. *See* Dyson Br. at 14 (citing, *e.g.*, '515 patent, Figs. 5 and 6 & elements 94 and 109 (JA4-5); '748 patent, Fig. 1 & element 13f (JA15)). Maytag's proposed construction thus would result in a preferred embodiment falling outside the scope of the patents—a construction that “is rarely, if ever, correct.” *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1583 (Fed. Cir. 1996).

Maytag takes issue with Dyson's reference to the cyclone as the “inner cyclone.” But the technology at issue uses two cyclones. *See* Dyson Br. at 2-3. The first cyclone, a relatively low-speed cyclone, is formed by a cylinder-shaped outer container. The second cyclone, a high-speed cyclone, is formed by a cone-shaped device inside the container. The patent claims make clear that the “cyclone” in this term is the one “mounted inside the container.” *See, e.g.*, '515 patent, col. 11:47 (JA11); '748 patent, col. 6:27 (JA21); '008 patent, col. 4:10 (JA26) & 6:18-19 (JA27). It is therefore appropriate to refer to the cyclone inside the container as the “inner cyclone.” *See also* '515 patent, col. 4:16-22 (JA7) (“The *inner cyclone* is sometimes referred to as a ‘high efficiency’ cyclone because of its ability to remove fine dust particles. The *outer* of the two cyclone units is deliberately constructed to be of lower efficiency relative to dust particles”); '748 patent, col. 1:6-9 (“The present invention relates to an improved vacuum cleaning apparatus. In one form the apparatus includes a movable collar which ejects dirt from an air outlet from an outer container leading to an *inner cyclone*. In another form the apparatus includes a disc . . . which prevents long strands . . . from entering the air outlet from the container to the *inner cyclone*.”) (emphasis added); '008 patent, col. 3:46-48 (“The air then moves into inlet passage 13*k* . . . and into the *inner cyclone* 12”).

Term # 6 “which has a circular cross-section”

Maytag makes two flawed arguments in favor of its proposed construction. First, Maytag claims that if the phrase “which has a circular cross-section” were intended to modify “outer container,” then “the phrase would have been set off between a pair of commas.” Maytag Br. at 12. A review of the very claims at issue, however, shows that not to be true. Claim No. 15 of the ’748 patent, for example, reads in relevant part:

a dirty air inlet at an upper portion of the outer container spaced from the bottom *which* is oriented for supplying dirt laden air into the container tangentially to the interior surface of the outer container *which* has a circular cross-section

See ’748 patent, col. 6:20-25 (JA21) (emphasis added); *see also* ’008 patent, col. 4:5-8 (JA26) (same) & col. 6:13-17 (JA27) (same). Maytag agrees that the phrase “which is oriented for supplying dirt laden air” refers to the dirty air inlet, yet that phrase is not “set off between a pair of commas.”³ Moreover, use of the word “tangentially” earlier in the claim supports Dyson’s construction. A tangential air flow in a circular container causes the air to rotate and create the centrifugal force necessary to separate dirt from the air. *See* Dyson Br. at 16. If the claim were construed to allow a rectangular container, for example, the sides would be straight, and there could be no supply of dirt laden air “tangentially.”

Second, Maytag claims that “the specification and drawings of the patents cited by both Maytag and Dyson reflect that both the outer container and the dirty air inlet have circular cross sections.” Maytag Br. at 12-13. But nothing in the specification

³ If the phrase “which has a circular cross-section” also were intended to modify “dirty air inlet,” as Maytag contends, then it would be preceded by the word “and.”

or drawings requires a circular dirty air inlet. Indeed, a review of Figure 1 of the '515 patent, for example, shows an elliptical, not a circular, shaped dirty air inlet. *See* '515 patent, Fig. 1, element 16 (JA2). This is an additional reason why the phrase “which has a circular cross-section” should be construed as referring to the outer container, not to the dirty air inlet.

Term # 7 “maintaining its velocity to a cone opening smaller in diameter than the diameter of the upper end of the cyclone”

Maytag improperly attempts to construe the words “maintaining its velocity” without reference to the technology at issue. A patent claim term should be given “the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention.” *Phillips*, 415 F.3d at 1312-13. Maytag’s analogy to the “cruise control on an automobile” is thus inappropriate. The claims at issue do not concern automobile cruise control technology, but rather cyclonic vacuum cleaner technology. As Dyson explained in its opening brief, a person of ordinary skill in the art of cyclonic vacuum cleaner technology would understand the phrase “maintaining its velocity” to mean simply that the conical shape of the cyclone assists in keeping the air flow moving. *Dyson Br.* at 16. It is a recognized principle of cyclonic technology that air entering the top of a cone-shaped cyclone tangentially will continue to rotate—and accelerate—to the bottom of the cyclone. *See also* '038 patent, col. 3:1-5 (“Because of the tangential entry arrangement, the dirt-laden airflow takes up a swirling motion inside the cyclone 12 and spirals over the interior surface 14 of the cyclone 12 towards the cone opening 18 *at ever-increasing angular speeds . . .*”) (emphasis added). If Maytag’s construction were accepted, the language would not cover the preferred embodiments of any of the patents-in-suit because it would require that the air flow remain “at a constant velocity or speed.” *Dyson Br.* at 16.

Term # 8 “the air inlet being oriented for supplying air tangentially to the surface”

This term requires only that the air inlet to the inner cyclone be oriented so that the air flows from the outer container into the inner cyclone tangentially to the surface and thus rotates around the inner surface of the cyclone. Maytag’s proposed construction of the words “tangentially to the surface” to require that the air flow “in a direction perpendicular to the radius of the surface” should be rejected as inconsistent with the patent specifications and the common meaning of those words. *See* Dyson Br. at 12-13, 16-17.

Moreover, Maytag’s criticism of Dyson’s use of the words “inner cyclone” and “so that it rotates around the inner surface of the inner cyclone” is unwarranted. As explained above, it is entirely appropriate to refer to the cyclone inside the container as the “inner cyclone” to make clear which of the two cyclones is being discussed. *See supra* pp. 5-6. In construing the term, it is likewise appropriate to explain that the purpose of orienting the air inlet for supplying air tangentially to the surface of the inner cyclone is so that the air rotates around the inner surface of the inner cyclone. Maytag does not dispute that a person of ordinary skill in the art of cyclonic vacuum cleaner technology would understand that to be the purpose of the tangential air flow. *See, e.g.*, ’515 patent, col. 4:60-62 (JA7) (“so as to make a tangential entry and to set up a swirling cyclonic flow of air”); ’038 patent, col. 3:1-3 (JA35) (“Because of the tangential entry arrangement, the dirt-laden airflow takes up a swirling motion inside the cyclone and spirals over the interior surface 14 of the cyclone . . .”).

Term # 9 “a dirt receiving and collecting chamber extending from the cone opening”

In view of the patent specifications and drawings, it is appropriate to clarify, as Dyson’s proposed construction does, that the words “extending from a cone opening” do not mean that the dirt collection chamber *must* start at the cone opening. Dyson Br. at 17-18. Nothing in the applicable patents requires the dirt collection chamber to start at the cone opening, and such a construction would improperly exclude the preferred embodiments of the patents. *Vitronics*, 90 F.3d at 1583 (construction that excludes preferred embodiment “is rarely, if ever, correct”).

Term # 10 “means for generating an airflow”

Although this term is a means-plus-function limitation, the only part of the structure from the written description needed to perform the claimed function—generating an airflow—is the “motor driven fan unit.” Dyson Br. at 18-19. Maytag baldly asserts that positioning the motor driven fan unit vertically above and immediately adjacent to the cyclone outlet port “is the necessary structure for achieving the desired airflow referenced in claim 14 as passing ‘sequentially through the dirty air inlet, the container, the cyclone air inlet, the cyclone, the receiving chamber and the cyclone air outlet.’” Maytag Br. at 17. But that same air flow is described in all of the patents-in-suit (*see, e.g.*, ’748 patent, col. 6:40-45; ’008 patent, col. 4:23-28 & col. 6:31-37; ’038 patent, col. 1:19-33), and Maytag does not claim that those patents require that the motor driven fan unit be positioned vertically above and immediately adjacent to the cyclone outlet port. Indeed, the motor driven fan unit is shown below the container in the drawings of the preferred embodiment of the ’008 patent. *See* ’008 patent, Fig. 1, element 19 (JA23). The air in the cyclonic apparatus of the infringing Hoover Fusion vacuum cleaner also flows in this sequence (*see* Jones Aff. ¶ 38 (D19-20); ¶ 45 (D24);

¶ 59 (D29)), and its motor driven fan unit is located below the container, not vertically above it.

Term # 11 “a disc means provided on the outside of the cyclone intermediate the receiving chamber and the air outlet of the container and around to the longitudinal axis of the cyclone”

This claim term is not a means-plus-function limitation,⁴ and should be construed in the manner proposed by Dyson. *See* Dyson Br. at 19-22. Maytag’s contrary argument ignores that Claim No. 15 of the ’748 patent states not only the function of the disc means, but also its structure, location and extent. *Id.* at 20-21. As Dyson explained in its opening brief, a “disc means,” by its very name, is understood to be “a thin circular object.” Moreover, Claim No. 15 specifies the location of the disc (on the outside surface of the inner cyclone, between the dirt collection chamber and the air outlet of the outer container, and around the longitudinal axis of the inner cyclone) and its extent (there must be a physical space between the disc and the interior wall of the outer container so that air can pass through that space). *See* ’748 patent, col. 6:47-54 (JA21); Jones Aff. ¶¶ 47-48 (D24-25).

Maytag’s assertion that Claim No. 15 of the ’748 patent requires use of a disc shaped like the disc described in the preferred embodiment is contradicted by the very intrinsic evidence Maytag cites. Maytag Br. at 18-19. The portion of the patent specification cited by Maytag expressly states: “The disc 20 can have any shape which is circular around the axis a-a and leaves an air passage.” Maytag’s proposed construction also would limit the disc in Claim No. 15 to one that has “a downwardly tapered wall and

⁴ Maytag concedes in its opening brief that the claim need not be read as a means-plus-function limitation simply because it uses the words “disc means.” *See* Maytag Br. at 23 (“Neither Dyson nor Maytag contend that the disc means of this limitation is written in the means-plus-function format of 35 U.S.C. § 112, ¶ 6.”).

an annular flange extending toward the inside wall of the container.” But these attributes are set forth in dependent claims of the ’748 patent. *See* ’748 patent, claim no. 17, col. 6:57-62 (JA21) (“wherein the disc means is conical in shape . . . such that there is a tapered wall between the openings”); ’748 patent, claim no. 18, col. 6:63-66 (JA21) (“wherein the larger opening has a flange perpendicular to the longitudinal axis of the container . . .”). “[T]he presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim.” *Phillips*, 415 F.3d at 1316; *see also Wenger Mfg., Inc. v. Coating Mach. Sys., Inc.*, 239 F.3d 1225, 1233-34 (Fed. Cir. 2001) (examination of other claims in patent may provide guidance and context for interpreting disputed means-plus-function limitation).

Further, Maytag’s proposed construction would require that the disc be “midway” between the receiving and collecting chamber and the air outlet of the container, yet Maytag fails to state any basis for that construction in its opening brief. As Dyson explained, nothing in the patent claim requires that construction. *Dyson Br.* at 21-22. The claim simply requires that the disc be positioned somewhere between the receiving and collecting chamber and the air outlet of the container. *Id.*

Term # 12 “a shroud means mounted on and around the outer surface of the cyclone and having opposed ends along the longitudinal axis and providing for outlet air from the container into the air inlet to the cyclone”

This claim term also is not a means-plus-function limitation, and should be construed in the manner proposed by Dyson. *See Dyson Br.* at 22-24. Once again, Maytag erroneously ignores that the claims at issue specifically state the structure, location and extent of the shroud means. *Id.* at 23-24. As Dyson explained in its opening brief, those skilled in the art of cyclonic vacuum cleaner technology would understand

that the “shroud” here is a covering with perforations that acts like a screen to prevent larger, lightweight fibrous material from escaping the outer container. The claims also expressly state the location and relevant position of the shroud within the cyclonic apparatus. *Id.*

Nothing in the ’008 patent requires “a combined integral shroud and disc unit,” as Maytag contends. Dyson Br. at 22. The references in the patent description to the “combined” disc and shroud of the ’008 patent, as opposed to the “separate” disc and shroud of the ’748 patent (*see* ’008 patent, col. 1:24-30 (JA25)), do not relate to whether the disc and shroud are “separate” components but to whether the disc and shroud are “separate” in terms of distance from one another. Jones Reply Aff. ¶ 21 (D143-44).

Moreover, the patent specification and claims make clear that the limitations Maytag seeks to impose concerning the disc are merely a preferred embodiment. For example, Maytag would construe Claim Nos. 1 and 23 of the ’008 patent to require a “cone-shaped disc with a larger downwardly tapered portion facing the bottom of the container” and “walls ending in a flange that surrounds and encloses the passage to the inner cyclone.” These attributes are found in separate dependent claims. *See, e.g.*, ’008 patent, claim no. 3, col. 4:57-60 (JA26) & claim no. 25, col. 6:65-68 (JA27) (“wherein the disc means has a conical shape around the shroud means such that a larger portion of the conical shape faces towards the bottom of the container”); ’008 patent, claim no. 6, col. 5:3-7 (JA27) & claim no. 28, col. 8:4-8 (JA28) (“wherein the shroud means has a flange around the longitudinal axis at the end adjacent the air inlet to the cyclone which is in close relationship to the outside of the cyclone so as to provide a chamber providing the inlet to the cyclone”). It therefore should be presumed that these limitations were not intended to be present in the independent claims. *Phillips*, 415 F.3d

at 1316; *Wenger*, 239 F.3d at 1233-34. Similarly, Maytag's proposed construction would require that the disc have "a downwardly inclined angle between about 97.5° to 110° from a central axis of the unit." The patent specification, however, expressly states that this is only the preferred angle for the disc. *See* '008 patent, col. 3:36-38 ("The disc *preferably* has a downwardly inclined angle alpha between about 97½ to 110° from the axis . . .") (emphasis added).

Even if the structure of the shroud were not expressly stated in the claims, and this term could be viewed as a means-plus-function limitation, paragraph 6 of 35 U.S.C. § 112 does not permit "incorporation of structure from the written description [or diagrams] beyond that necessary to perform the claimed function." *Micro Chem., Inc. v. Great Plains Chem. Co.*, 194 F.3d 1250, 1258 (Fed. Cir. 1999); *accord Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1321 (Fed. Cir. 2003). Maytag states that the function of the shroud is to "provid[e] for outlet air from the container into the air inlet to the cyclone." Maytag Br. at 20. Yet, nothing in Maytag's proposed construction of the claim term relates to that function. Rather, its proposed construction deals mainly with the shape and location of the *disc* referred to in the patent. As Gareth Jones has explained, the purpose of the disc in the '008 patent is to help prevent larger particles and long strands from clogging the holes of the shroud. *See* Jones Aff. ¶¶ 14-15 (D7-8). It plays no role in "providing for outlet air from the container into the air inlet to the cyclone." These limitations thus would not properly be part of the construction of this term even if it were a means-plus-function limitation.

Term # 13 “wherein the shroud means is mounted at one end below the air inlet to the cyclone and extends along the outer surface with the other end at a position intermediate to the cone opening and the air inlet to the cyclone”

In light of Maytag’s prior contention that “intermediate,” as used in the patents-in-suit, means “in the middle,” it is appropriate to construe this term. Dyson Br. at 24-25. Dyson’s proposed construction properly clarifies that the word “intermediate” simply means between and is not limited to “in the middle.” As a result, the end of the shroud closest to the cone opening need only be positioned somewhere before the cone opening of the cyclone—*i.e.*, between the cone opening and the air inlet. *Id.* In addition, the words “mounted at one end below the air inlet” are properly understood here to mean that the shroud is positioned below the air inlet to the cone-shaped cyclone. Jones Aff. ¶ 62 (D30). Maytag offers no reason why Dyson’s construction is inaccurate. Lastly, for the reasons discussed above, it is appropriate to clarify that the “cyclone” discussed here is the “inner cyclone,” as opposed to the lower-efficiency outer cyclone of the container. *See supra* pp. 5-6.

Term # 14 “wherein the shroud means has perforations adjacent to the position intermediate to the cone opening for the flow of air from the outer container to the cyclone inlet”

None of Maytag’s criticisms of Dyson’s proposed construction of this term has merit. First, it is proper to clarify that the “cyclone” described here is the “inner cyclone” of the cyclonic apparatus, not the outer cyclone of the container.

Second, because Maytag previously has argued that the word “adjacent” requires that the perforations on the shroud be immediately next to the cone opening, it is appropriate to clarify that use of word “adjacent” means only that the shroud has perforations near the end of the shroud closest to the cone opening. Maytag claims that the perforations are “not necessarily near the end of the shroud.” Maytag Br. at 23. The

claim states, however, that “the shroud is mounted at one end below the air inlet to the cyclone and extends along the outer surface with the *other end* of the shroud at *a* position intermediate to the cone opening and the air inlet to the cyclone.” ’008 patent, col. 4:37-39 (emphasis added). The words “*the* position intermediate to the cone opening and the air inlet to the cyclone” used later in the claim thus clearly refer back to the “end” of the shroud stopping at “a position intermediate to the cone opening and the air inlet to the cyclone.”

Third, Dyson’s proposed construction properly captures the meaning of the words “for the flow of air from the outer container to the cyclone inlet.” As is clear from the patent specification, those words simply mean that the shroud has perforations so that air can pass through the perforations to the air inlet of the inner cyclone. *See, e.g.*, ’008 patent, col 3:42-46 (JA26) (“The air . . . moves along outer wall 12*b*, over disc 30*b*, *through perforations* 30*f* and up through passage 13*h* defined by shroud unit 30 and wall 12*b*.”); Jones Aff. ¶ 64 (D31).

Term # 15 “disc means provided on the shroud means at a lower longitudinal extent of the shroud means and the air inlet of the cyclone and around the axis of the cyclone”

Maytag again criticizes Dyson for referring to the cyclone here as the “inner cyclone.” As discussed above, that criticism is without merit. *See supra* pp. 5-6.

Without citing any support for its position, Maytag asserts that the words “disc means provided on the shroud means” do not mean that the “disc . . . touches the bottom portion of the shroud,” as Dyson contends. Maytag Br. at 23-24. The patent specification makes clear, however, that the words “provided on” simply require that the disc touch the bottom of the shroud. Jones Reply Aff. ¶ 21 (D143-44). The ’008 patent speaks to a “combined” disc and shroud in the sense that the disc is located immediately

below and touches the shroud (as opposed to the disc and shroud of the '748 patent, which are "separate" in the sense that there is a physical space between the bottom of the shroud and the disc). *See* '008 patent, col. 1:24-30 (JA25); Jones Reply Aff. ¶ 21 (D143-44).

Maytag also wrongly criticizes Dyson's proposed construction of the words "disc means . . . at a lower longitudinal extent of the shroud means and the air inlet of the cyclone." It is clear from the patent claims themselves that the air inlet of the inner cyclone must be above the shroud. *See* '008 patent, claim no. 1, col. 4:35-36 & claim no. 23, col. 6:42-43 ("wherein the shroud means is mounted at one end below the air inlet to the cyclone"). Thus, the words of the claims placing the "disc means . . . at a lower longitudinal extent of the shroud means and the air inlet of the cyclone" mean that "the air inlet is above the shroud and the disc is at a lower longitudinal extent of the shroud," as Dyson proposes.

Term # 16 "having a tangential air inlet located at or adjacent the end of the cyclone having the larger diameter"

The parties' main dispute regarding this term concerns the meaning of the word "tangential." For the reasons discussed above in connection with Terms 3 and 8, the word "tangential" requires only that the air flow in the nature of a tangent. *See also* Dyson Br. at 12-13, 17. Maytag, however, would improperly construe the term to require that the air flow in the exact direction of a tangent—*i.e.*, "in a direction perpendicular to the radius."

Maytag also criticizes Dyson's reference to the cyclone here as the "inner cyclone." For the reasons discussed above, the cyclone here is properly referred to as the inner cyclone.

CONCLUSION

The Court should adopt Dyson's proposed claim construction for the disputed terms of the patents-in-suit.

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CERTIFICATE OF SERVICE

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